

# PATENT ABSTRACTS OF JAPAN

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## **(54) RADIO DIGITAL TRANSMISSION/RECEPTION SYSTEM**

### **(57)Abstract:**

**PURPOSE:** To simplify the whole of a transmission/reception system by devising the processing of an input data string to use a MODEM of M-level QAM as it is at the time of switching between M-level QAM and four-phase PSK modulation.

**CONSTITUTION:** When the quality of a line is deteriorated by the degradation of the radio propagation state, controllers 7 and 14 in transmission and reception sides are operated. A switching device 3 of 16-level QAM(quadrature amplitude modulation)-four phase PSK in a transmission side T ignores the input of two strings corresponding to a second data string d2 and performs coding only with quadrature discrimination bits B1~B4 as the input of two strings corresponding to a first data string d1. Since the data of a third data string d3 consists of only information of quadrature discrimination bits B1~B4 in the reception side R, error in output data of the third data string d3 is reduced even if the line state is bad. Thus, the whole of the transmission/reception system is simplified.

